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(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): HAITSMA, Jaap, A. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

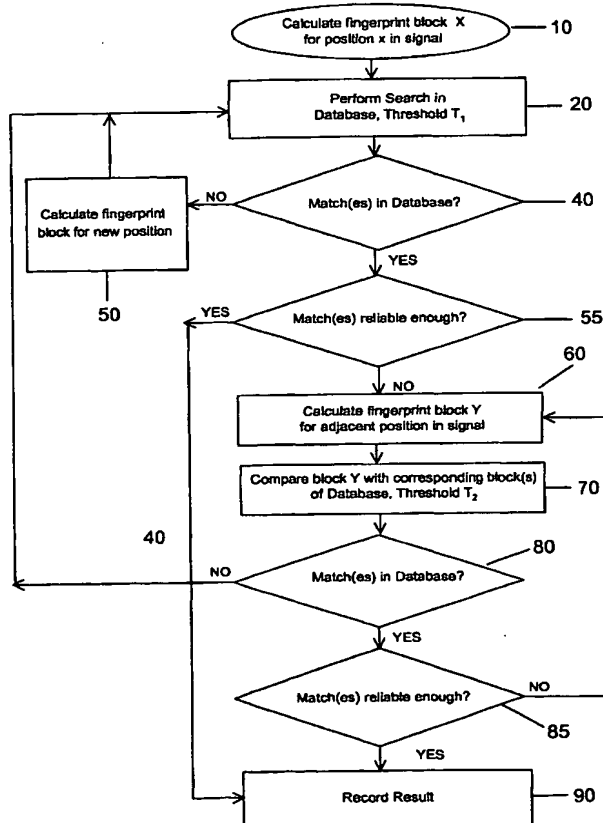
(74) Agent: SCHMITZ, Herman, J., R.; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

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[Continued on next page]

(54) Title: IMPROVED AUDIO DATA FINGERPRINT SEARCHING



(57) Abstract: Methods and apparatus are described for matching a set input fingerprint blocks, each fingerprint block representing at least a part of an information signal, with fingerprints stored in a database that identify respective information signals. The method includes selecting a first fingerprint block of the set of input fingerprint blocks (10), and finding at least one fingerprint block in the database that matches the selected fingerprint block (20, 40). A further fingerprint block is then selected from the set of input blocks (60), at a predetermined position from the first selected fingerprint block. A corresponding fingerprint block is then located in the database at the same predetermined position relative to the found fingerprint block (70), and it is determined if the located fingerprint block matches the selected further fingerprint block (80).

**Declaration under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE,*

DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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INTERNATIONAL SEARCH REPORT

PCT/18/04404

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F17/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02 11123 A (SHAZAM ENTERTAINMENT LTD ;SMITH JULIUS O III (US); WANG AVERY LI C) 7 February 2002 (2002-02-07) abstract page 4, line 29 -page 5, line 8 page 13, line 14 -page 13, line 32 page 19, line 5 -page 29, line 2	1-14
X	HAITSMA ET AL: "Robust Audio Hashing for Content Identification" PROCEEDINGS INTERNATIONAL WORKSHOP ON CONTENT-BASED MULTIMEDIA INDEXING, XX, XX, 19 September 2001 (2001-09-19), pages 1-8, XP002198245 the whole document	1-14



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Abbing, R

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>OOSTVEEN J ET AL: "FEATURE EXTRACTION AND A DATABASE STRATEGY FOR VIDEO FINGERPRINTING"</p> <p>LECTURE NOTES IN COMPUTER SCIENCE, SPRINGER VERLAG, NEW YORK, NY, US, vol. 2314, 11 March 2002 (2002-03-11), pages 117-128, XP009017770</p> <p>ISSN: 0302-9743</p> <p>the whole document</p>	1-14
A	<p>WELSH,M., BORISOV,N.,HILL,J.,VON BEHNEN, R, WOO, A.: "Querying large collections of music for similarity"</p> <p>TECHNICAL REPORT UCB/CSD00-1096, 'Online! November 1999 (1999-11), pages 1-13, XP002275121</p> <p>Berkeley, U.S.A.</p> <p>Retrieved from the Internet: <URL:http://citeseer.ist.psu.edu/welsh99querying.html> 'retrieved on 2004-03-25! abstract</p> <p>page 2, paragraph 2</p> <p>page 7, paragraph 4.1</p>	1-14
A	<p>KURTH,F., CLAUSEN, M.: "Full-text Indexing of Very Large audio Data Bases"</p> <p>AUDIO ENGINEERING SOCIETY CONVENTION, 'Online! 12 - 15 May 2001, pages 1-11, XP002275122</p> <p>Amsterdam, The Netherlands</p> <p>Retrieved from the Internet: <URL:www.cg.cs.tu-bs.de/v3d2/pubs.collection/aes110pcmindex.pdf></p> <p>'retrieved on 2004-03-25!</p> <p>the whole document</p>	1-14
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INTERNATIONAL SEARCH REPORT

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